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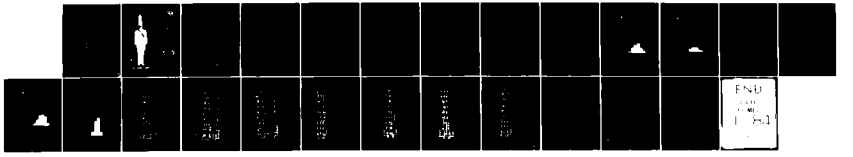

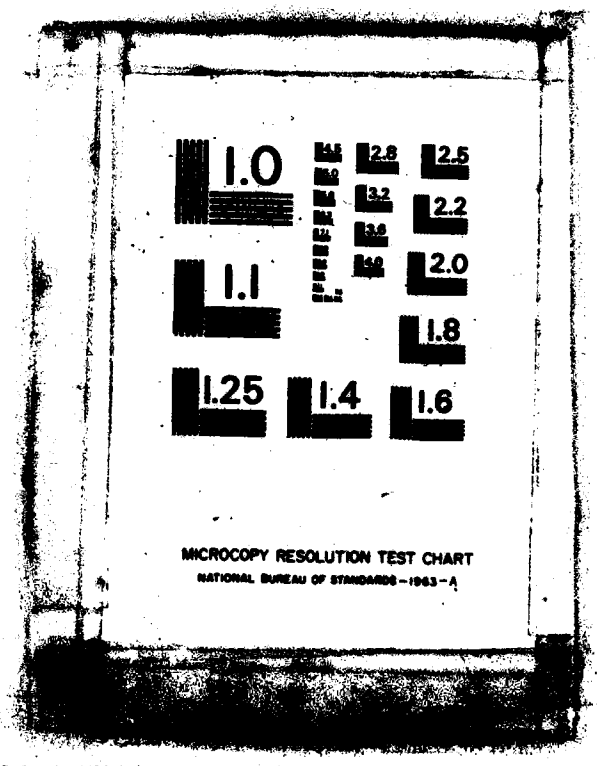
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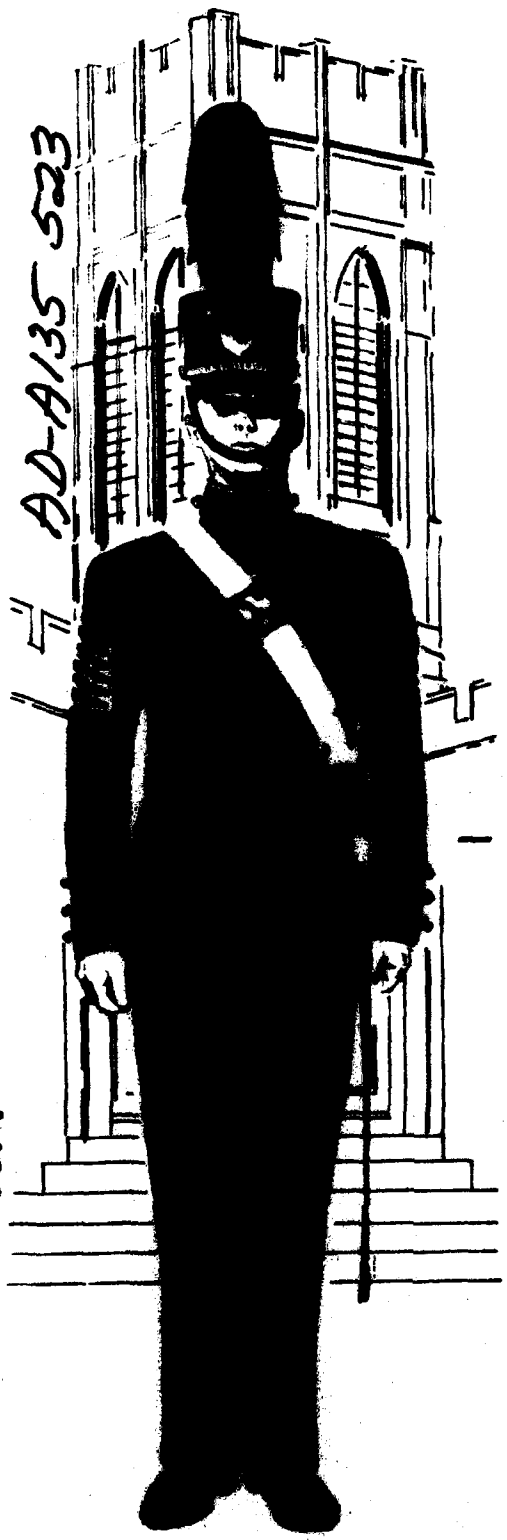

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UNITED STATES MILITARY ACADEMY

WEST POINT, NEW YORK

TRENDS IN ADMISSION VARIABLES THROUGH THE CLASS OF 1987

DUTY-HONOR-COUNTRY

OFFICE OF INSTITUTIONAL RESEARCH

NOVEMBER 1983

TRENDS IN ADMISSION VARIABLES THROUGH THE CLASS OF 1987

Report No. : USMA-OIR-84-002
Project No. : 490
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ABSTRACT

The United States Military Academy uses the Whole Candidate concept in the selection of candidates for admission. This concept encompasses three broad areas: academics, leadership potential, and physical condition and aptitude. This report compares the pre-college performance of members of the Class of 1987 with previous classes in these three areas.

NOTE: Any conclusions in this report are not to be construed as official U. S. Military Academy or Department of the Army positions unless so designated by other authorized documents.

OFFICE OF INSTITUTIONAL RESEARCH
UNITED STATES MILITARY ACADEMY
WEST POINT, NEW YORK 10996

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EXECUTIVE SUMMARY

I. PURPOSE. This report contains information, for rapid reference, comparing the pre-college performance of members of the Class of 1987 with previous classes in the areas of academics, leadership potential, and physical condition and aptitude.

II. METHODOLOGY. Data displayed in this report were obtained from the following sources:

A. Academic Performance: High School Transcripts, American College Tests and College Entrance Examination Board Tests.

B. Physical Performance: Physical Aptitude Exam.

C. Leadership Potential: An index developed from combining extra-curricular and athletic activities with high school faculty evaluation.

III. RESULTS.

A. The mean SAT-Math score (636) for cadets in the Class of 1987 is six points higher than the average mean score of the last nine years and the mean SAT-Verbal score (559) is four points higher. The mean HSR in the Class of 1987 is the highest in ten years. Cadet performance in high school and on the College Board exams has resulted in a CEER score which is the highest on record.

B. The Class of 1987 Physical Aptitude Exam Score for men (567) is nine points higher than the average for the last nine years.

C. The mean Leadership Potential Score (608) is the highest in 10 years, and thirteen points above the mean score for the Class of 1986. The Class of 1987 is the second class to be admitted using the new faculty evaluation form.

D. The mean Whole Candidate Score for cadets in the Class of 1987 (6013) is nearly a hundred points above the mean score of the last nine years and is the highest mean score recorded by any entering class.

IV. CONCLUSIONS.

A. Academic Qualifications: The academic qualifications of cadets place them in the top 10-15% of college bound high school seniors. College Board scores for the Class of 1987 have recovered to near the ten year high in scores while the national average has stabilized below the ten year high for college-bound high school seniors.

B. Physical Qualifications: The Physical Aptitude Exam scores of male cadets have shown a slight increase over the last ten years while the scores of female cadets have been stable.

C. Leadership Qualifications: The Leadership Potential Score, a measure of the qualities of leadership in candidates, has risen for the Class of 1987, after ten years during which there was little change.

D. The Military Academy is continuing to attract outstanding candidates.

I. INTRODUCTION

A. Background.

1. This report, along with the reports, Characteristics of the Class of 1987 (August 1983) and New Cadets and Other College Freshmen, Class of 1987 (due spring, 1984), comprise the three general reports prepared by the Office of Institutional Research to describe the Class of 1987 at the time the class entered the Military Academy.

2. The same reports were prepared for the Classes of 1971 through 1986 and similar reports are planned for each future class when it enters the Military Academy.

B. Purpose. This report compares the pre-college performance of members of the Class of 1987 with previous classes in the areas of academics, leadership, physical condition and aptitude.

II. METHODOLOGY

A. Data Collection. Data displayed in this report were obtained from the following sources:

1. Academic performance: High School Transcripts, American College Tests, and College Entrance Examination Board Tests.
2. Physical performance: Physical Aptitude Exam.
3. School Activities and Awards: Self-reported by cadets on questionnaires administered during Cadet Basic Training.
4. Leadership Potential: An index developed from combining extracurricular and athletic activities with high school faculty evaluations.

B. Definitions.

1.	CEER	College Entrance Examination Board scores and High School Rank Scores combined statistically.
2.	HSR	High School Rank score.
3.	LPS	Leadership Potential Score.
4.	PAE	Physical Aptitude Examination.
5.	SAT-V	Scholastic Aptitude Test - Verbal.
6.	SAT-M	Scholastic Aptitude Test - Mathematics.
7.	ACT-ER	American College Test - English.
8.	ACT-MA	American College Test - Mathematics.
9.	ACT-NS	American College Test - Natural Science.
10.	ACEER	A composite score of 3 ACT tests and HSR (the ACT Social Science test is not used in calculating the ACEER).
11.	WCS	Whole Candidate Score. A combination of CEER (or ACEER), LPS and PAE.

III. RESULTS

A. Academic Characteristics.

1. The mean College Entrance Examination Board and American College Test scores for the Classes of 1983 through 1987 for admitted cadets are:

	1987						
	M	F	Total	1986	1985	1984	1983
SAT-V	557	572	559	560	549	552	560
SAT-M	639	607	636	631	620	623	626
ACT-EN	23.4	24.0	23.5	23.4	23.3	23.2	23.2
ACT-MA	29.2	28.1	29.1	28.9	28.6	28.9	28.9
ACT-NS	29.5	27.9	29.2	28.7	28.7	28.7	29.1
HSR	578	616	583	580	570	556	565

2. The mean SAT-V score for men in the Class of 1987 is higher than that of 87% of male secondary school seniors nationwide who took the test; and the mean score for women cadets is higher than 89% of female students who comprise the national norm. Male mean SAT-M scores were higher than 82% of the national norm for male students; the mean score for women cadets was above 90% of the national norm for women. The means of cadets on the American College Test scores were well above the national sample of students at 291 four year colleges. On average, male and female cadets outscored 87% of students in the national sample on ACT-English. The mean ACT-Math for male cadets is higher than 92% of the norm; that for female cadets is above 94% of women in the sample. Male cadets' average ACT-Natural Science score is above 84% of their norm group, female cadets averaged above 89% of the female norm groups.

3. The mean scores of all college-bound high school seniors, nationwide, on the Scholastic Aptitude Tests have held steady for the past four years, but have yet to recover from their steep decline in previous years. For USMA the decline in mean SAT scores has been less:

SAT-Verbal

	1967		1983		% Decline	
	M	F	M	F	M	F
USMA	574	-	557	572	3%	-
Nationwide	463	466	430	420	7%	10%

SAT-Math

	1967		1983		% Decline	
	M	F	M	F	M	F
USMA	649	-	[illegible]	607	[illegible]	-
Nationwide	514	467	[illegible]	445	[illegible]	[illegible]

4. Each candidate is evaluated either on College Board Scores and High School Rank (CEER) or American College Test Program scores and HSR (ACEER). If both are available, the higher of the two is used. Figure 1 provides a graphic comparison of the number of cadets within each CEER range with the number of comparably evaluated candidates within the same range. Figure 2 shows a similar comparison of candidates and cadets evaluated using ACEER scores. Table 1 shows the distribution, at 10 point intervals, of Whole Candidate Score components for cadets in the Class of 1987.

B. Physical Aptitude. The average Physical Aptitude Examination score of 567 for men in the USMA Class of 1987 is nine points above the average score for the previous nine classes, and shows a slight increase over the mean score for the Class of 1986. The women in the Class of 1987 had a mean PAE score of 523, which is the same as the mean score for women in the Class of 1986. It should be noted that PAE tests for men and women are scored on different items and thus are not comparable. The mean PAE for all candidates is shown in Table 2.

C. Leadership Potential. The Leadership Potential Scores are derived from the ratings of candidates by their secondary school teachers and evaluations by admissions officials of quality of participation by candidates in athletic and other school and community activities. The mean LPS for the class (608) is eight points higher than the mean of the previous nine classes. It is higher than the average score attained by any class since the Class of 1977. Leadership Potential Scores for the Classes of 86 and 87 were calculated based on a new faculty evaluation norm, which may effect comparisons with earlier classes. A graphic comparison of the distribution of scores in the Class of 1987 with that in the candidate population is provided in Figure 3.

D. Overall Characteristics.

1. The Whole Candidate Score is a weighted score consisting of 60 percent CEER (or ACEER), 30 percent LPS, and 10 percent PAE. The distribution of the WCS for the Class of 1987 is shown below.

Score Range	Frequency	Percent
7500-8000	0	0
7000-7499	4	0.3
6500-6999	121	8.5
6000-6499	663	46.5
5500-5999	531	37.0
5000-5499	124	8.6
4500-4999	2	0.1
	1435	

Mean = 6013 Standard Deviation = 367

2. A graphic comparison of the number of cadets whose scores fall in each WCS range with the number of candidates whose scores fall within the same ranges is shown in Figure 4.

E. TRENDS IN ADMISSIONS VARIABLES. Figures 5-11 show trend data for the Classes of 1978 through 1987. Figure 5 shows that after a period of decline for the Classes of 1983 through 1985, mean CEER scores of entering cadets have risen over the past two years. The mean CEER score for cadets in the Class of 1987 is higher than that for any previous class. Other trends for admitted cadets reflect the following:

1. SAT-V and SAT-M scores show trends similar to that of CEER Scores, with SAT-M recovering more strongly than SAT-V in recent years (Figures 6 and 7).

2. The mean LPS remained fairly constant for the Classes of 1978 through 1986, but showed an increase in the Class of 1987. The mean LPS for the Class of 1987 is the highest in the ten year period (Figure 8).

3. The PAE scores for men show a slight rise for the Classes of 1978 through 1981, and have remained fairly constant in later classes (Figure 9).

4. The HSR remained fairly constant for the Classes of 1978 through 1984, and has risen steadily for the three most recent classes. The mean for the Class of 1987 is the highest for the ten year period (Figure 10).

5. The WCS has risen for the Classes of 1986 and 1987 after a two year period of decline. The Class of 1987 is the first class in which the mean WCS exceeds 6000.

F. SELECTED ACTIVITIES AND AWARDS.

1. Tables 3 and 3a give information on the background, activities and awards of entering cadets of the Classes of 1979 through 1987.

2. Cadets in the Class of 1987 were actively involved in diverse extracurricular and athletic activities in high school. In this involvement they are similar to previous classes. Eighty-seven percent of the Class of 1987 earned varsity letters and 48 percent were team captains. Over 26 percent held an elective high school class office during their senior year. Twenty-four percent were Boys'/Girls' State Representatives. Forty-four percent were scouts, with over 8 percent making the rank of Eagle Scout.

IV CONCLUSIONS

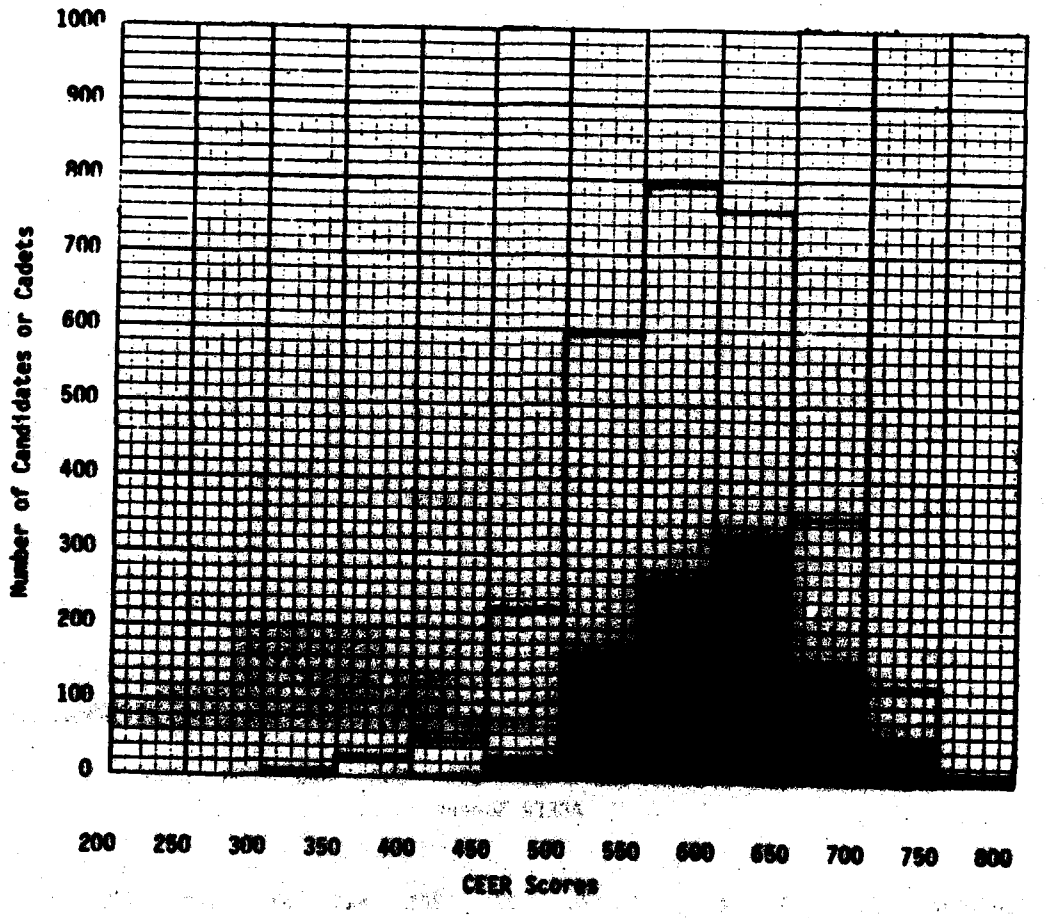
1. Academic Qualifications: The mean College Board scores of cadets have followed the general trend of the national average, but the decline in scores has been only about half of the national norm. SAT-Math scores of cadets have recovered strongly in recent years.

2. Physical Qualifications: The Physical Aptitude Exam scores of male cadets have shown a slight increase over the past two years while the scores of female cadets have remained stable.

3. Leadership Qualifications: The Leadership Potential Score, a measure of the qualities of leadership in candidates, is higher on average for cadets in the Class of 1987 than for cadets in the nine previous classes, indicating highly favorable evaluations of the new cadets by admissions officials and secondary school teachers.

4. Overall Qualifications: The Class of 1987 is the first class to have a mean Whole Candidate Score which exceeds 6000, indicating that the Military Academy is continuing to attract outstanding candidates.

	Number	Mean	SD
Candidates	2958	584	69
Cadets	986	605	58



No. Candidates	0	0	9	22	59	224	597	796	760	388	126	14
% Entered	0	0	0	0	2	10	27	33	43	44	41	29
No. Cadets	0	0	0	0	1	23	160	263	325	195	52	4

FIGURE 1 COMPARISON OF THE NUMBER OF CADETS (EVALUATED USING CEER) WITH THE NUMBER OF FULLY QUALIFIED CANDIDATES (EVALUATED USING CEER) AT EACH CEER SCORE LEVEL FOR THE CLASS OF 1987.

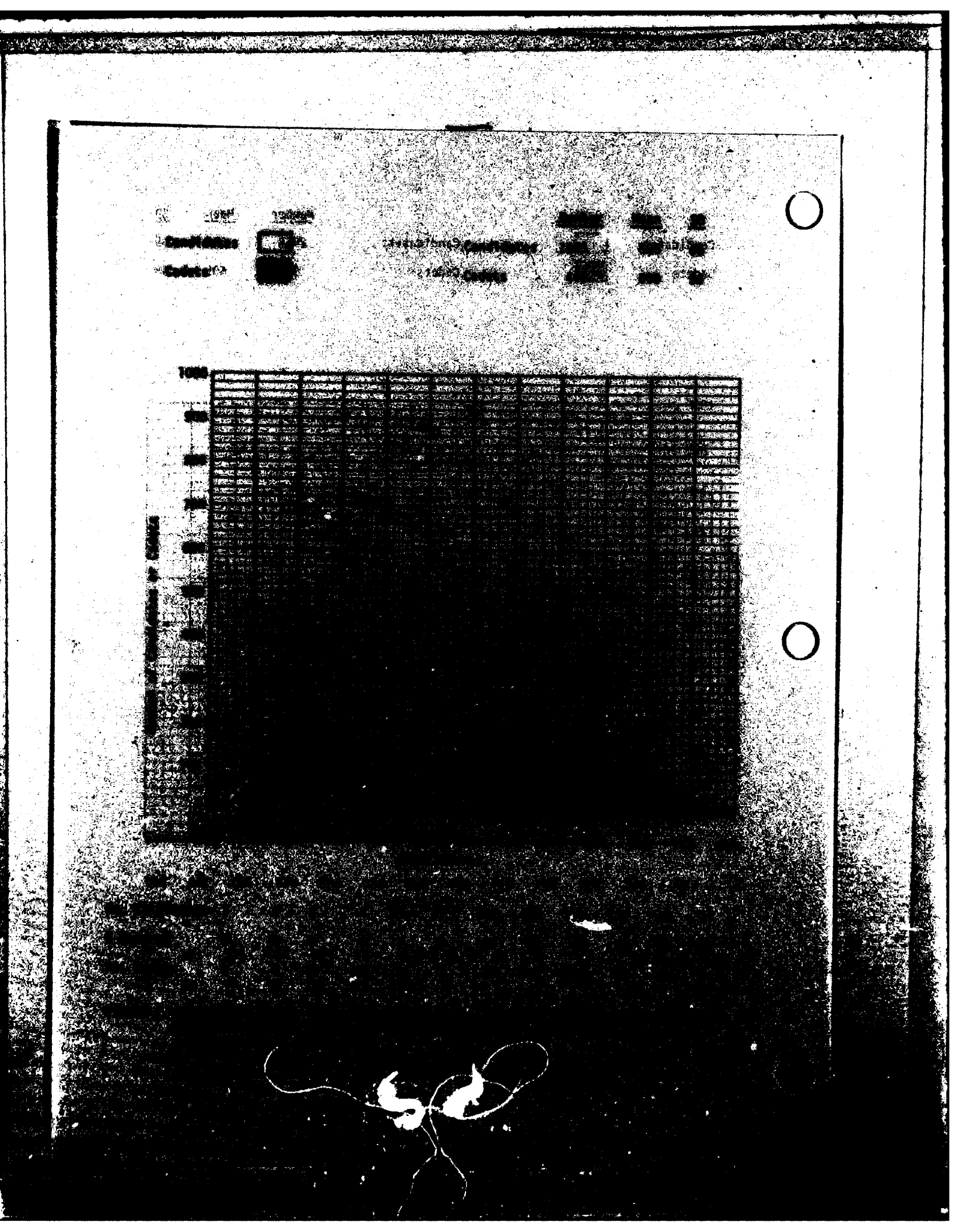


TABLE 1

DISTRIBUTION OF SCORES ON WHOLE CANDIDATE SCORE COMPONENTS
FOR THE CLASS OF 1987

Score Ranges	Academic				Male Physical Aptitude (PAE)		Female Physical Aptitude (PAE)		Leadership Potential (LPS)	
	CEER		ACEER							
	No.	%	No.	%	No.	%	No.	%	No.	%
750-800	4	0	0	0	19	2	2	1	3	0
700-749	52	5	24	5	55	4	7	4	82	6
650-699	155	16	60	13	121	10	6	3	323	22
600-649	325	33	140	31	202	16	17	10	394	28
550-599	263	27	137	30	303	24	34	19	367	26
500-549	163	16	79	18	283	22	31	18	197	14
450-499	23	2	7	2	206	16	32	18	55	4
400-449	1	0	2	0	64	5	45	25	12	1
350-399	0	0	0	0	0	0	3	2	1	0
300-349	0	0	0	0	1	0	0	0	1	0
250-299	0	0	0	0	1	0	0	0	0	0
200-249	0	0	0	0	0	0	0	0	0	0
Total	986		449		1255		177		1435	
Mean	605		600		567		523		608	
S.D.	58		56		79		88		63	

TABLE 2

MEANS AND STANDARD DEVIATIONS FOR CEER, LPS, PAE AND WCS, CLASS OF 1987

	CEER			LPS			PAE*			WCS		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
A	7780	545	86	12162	550	82	6185	521	105	10859	5439	634
T	2958	584	69	4372	582	75	4378	532	95	4361	5788	479
M	2673	585	69	3969	583	75	3974	536	94	3960	5798	477
C	986	605	58	1435	608	63	1255	567	79	1435	6013	367

*PAE for admitted cadets is shown for male cadets only, so that more valid comparisons can be made with prior years. Means and standard deviations of PAE for candidates is for male and female combined.

MEANS AND STANDARD DEVIATIONS FOR ACEER, ACT-EN, ACT-MA, AND ACT-NS, CLASS OF 1987

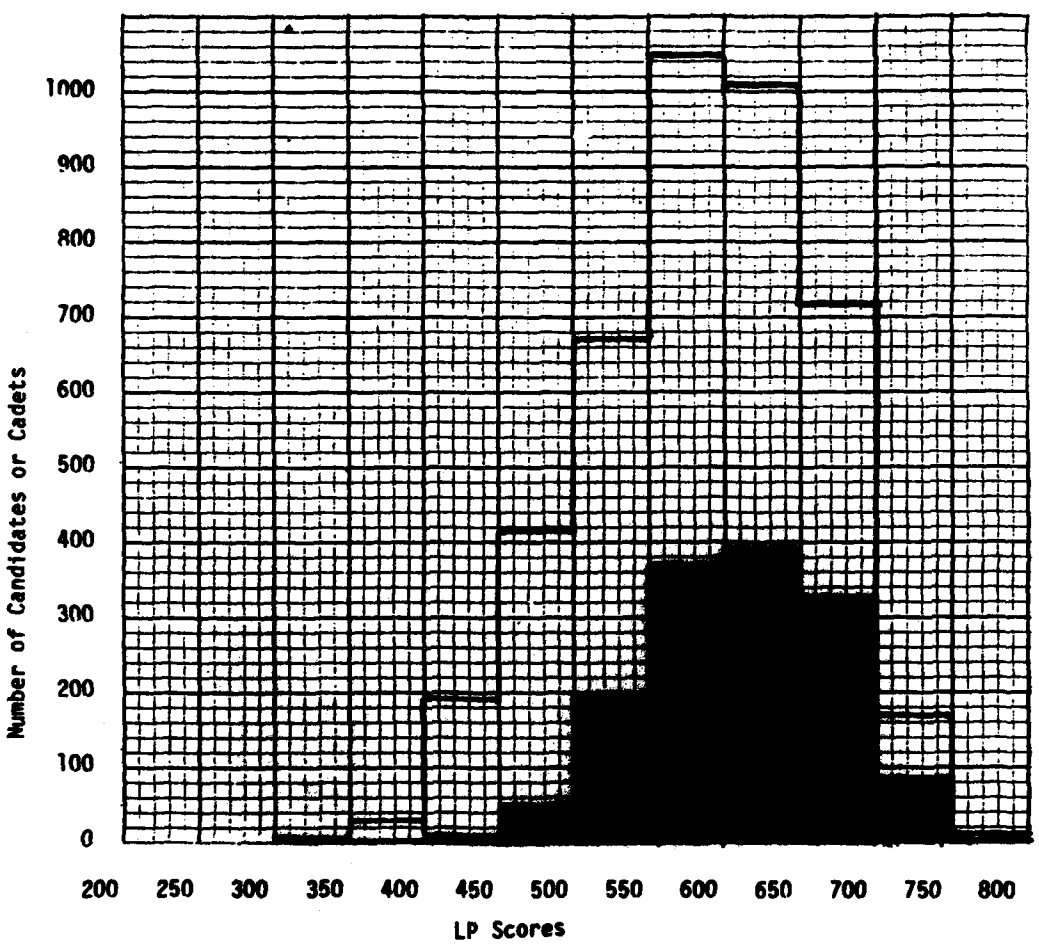
	ACEER			ACT-EN			ACT-MA			ACT-NS		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
A	3153	550	90	3153	22.0	4.2	3153	26.4	5.4	3153	27.6	4.7
T	1405	585	68	1405	23.3	3.3	1405	28.3	3.8	1405	29.0	3.7
M	1289	585	67	1289	23.3	3.3	1289	28.4	3.8	1289	29.0	3.7
C	449	600	58	449	23.4	2.9	449	29.1	3.2	449	29.2	3.5

MEANS AND STANDARD DEVIATIONS FOR SAT-V, SAT-M, AND HSR, CLASS OF 1987

	SAT-V			SAT-M			HSR		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
A	6967	512	94	6966	580	97	11494	527	113
T	2956	546	80	2956	619	76	4363	556	108
M	2671	546	80	2671	619	75	3962	556	108
C	986	589	69	986	656	64	1436	583	104

NOTE: A = All Candidates Tested on Variables
T = All Candidates Fully Tested on CEER (ACEER), LPS, PAE and WCS
M = All Candidates Fully Tested and Medically Qualified
C = Admitted Candidates Who Became Cadets

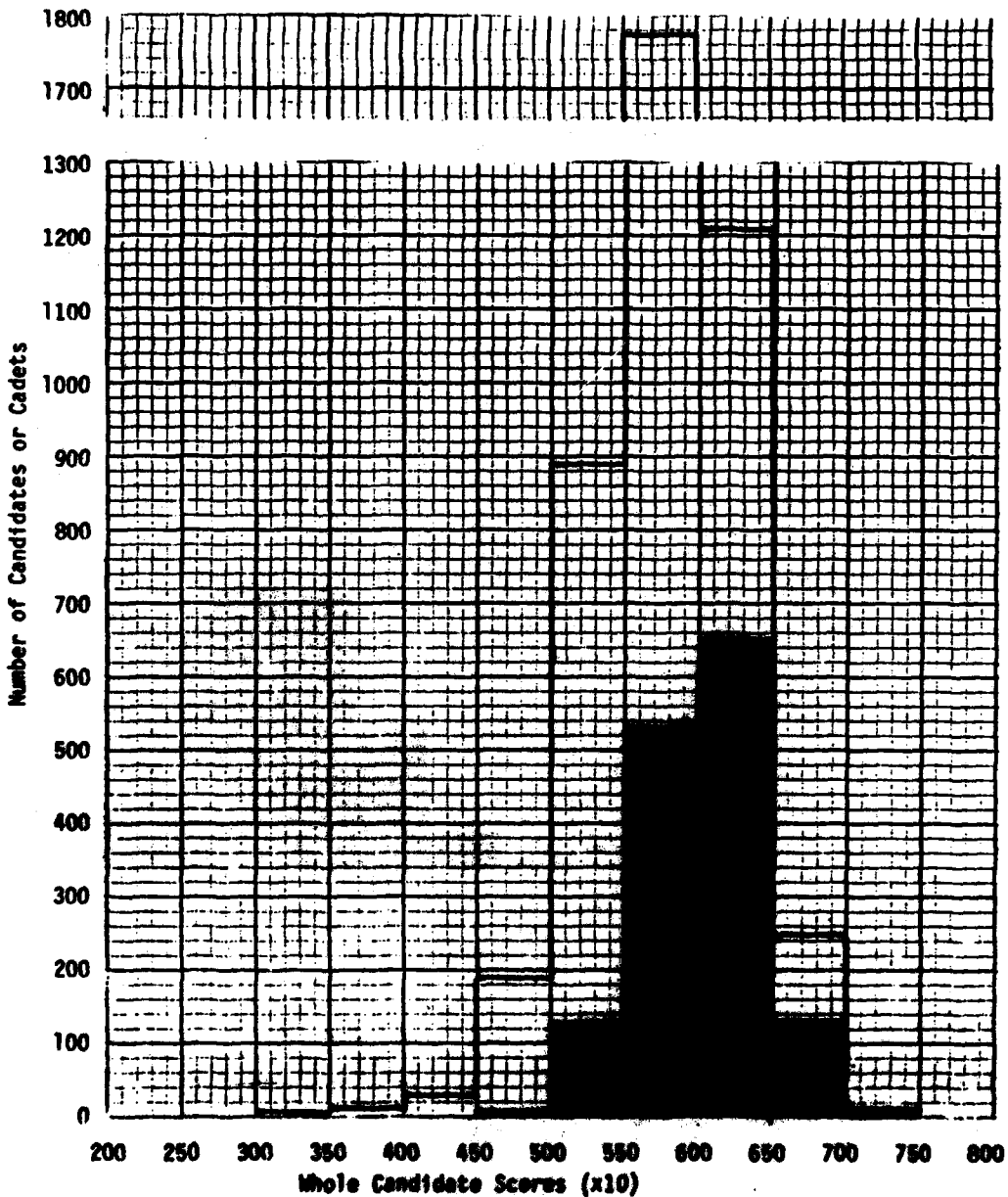
	Number	Mean	SD
Candidates	4372	582	75
Cadets	1435	608	63



No. Candidates	0	0	7	27	193	418	772	1048	1007	719	169	12
% Entered	0	0	14	4	6	13	26	35	39	45	48	25
No. Cadets	0	0	1	1	12	55	197	367	394	323	82	3

FIGURE 3 COMPARISON OF THE NUMBER OF CADETS WITH THE NUMBER OF FULLY EXAMINED CANDIDATES AT EACH LEADERSHIP POTENTIAL LEVEL FOR THE CLASS OF 1987.

	Number	Mean	SD
Candidates	4361	579	48
Cadets	1435	601	37



No. Candidates	0	0	1	9	29	186	891	1779	1203	251	13	0
% Entered	0	0	0	0	0	1	14	30	54	48	31	0
No. Cadets	0	0	0	0	0	2	124	531	653	121	4	0

FIGURE 4 COMPARISON OF THE NUMBER OF CADETS WITH THE NUMBER OF FULLY EXAMINED CANDIDATES AT EACH WHOLE CANDIDATE SCORE LEVEL FOR THE CLASS OF 1987.

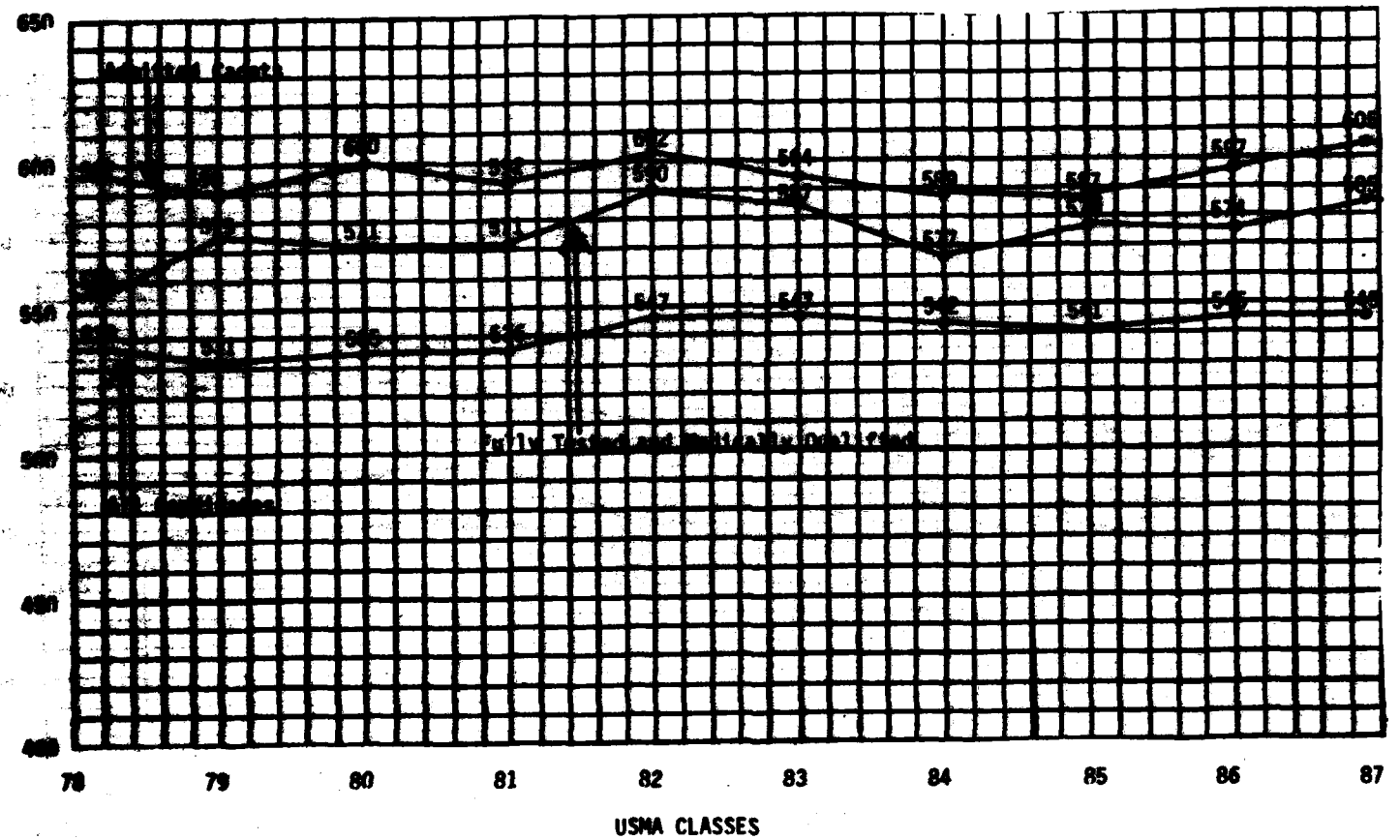


FIGURE 6. TRENDS OF MEAN CEER SCORE FOR THE CANDIDATES AND ENTERING CADETS OF THE CLASSES OF 1978 THROUGH 1987.

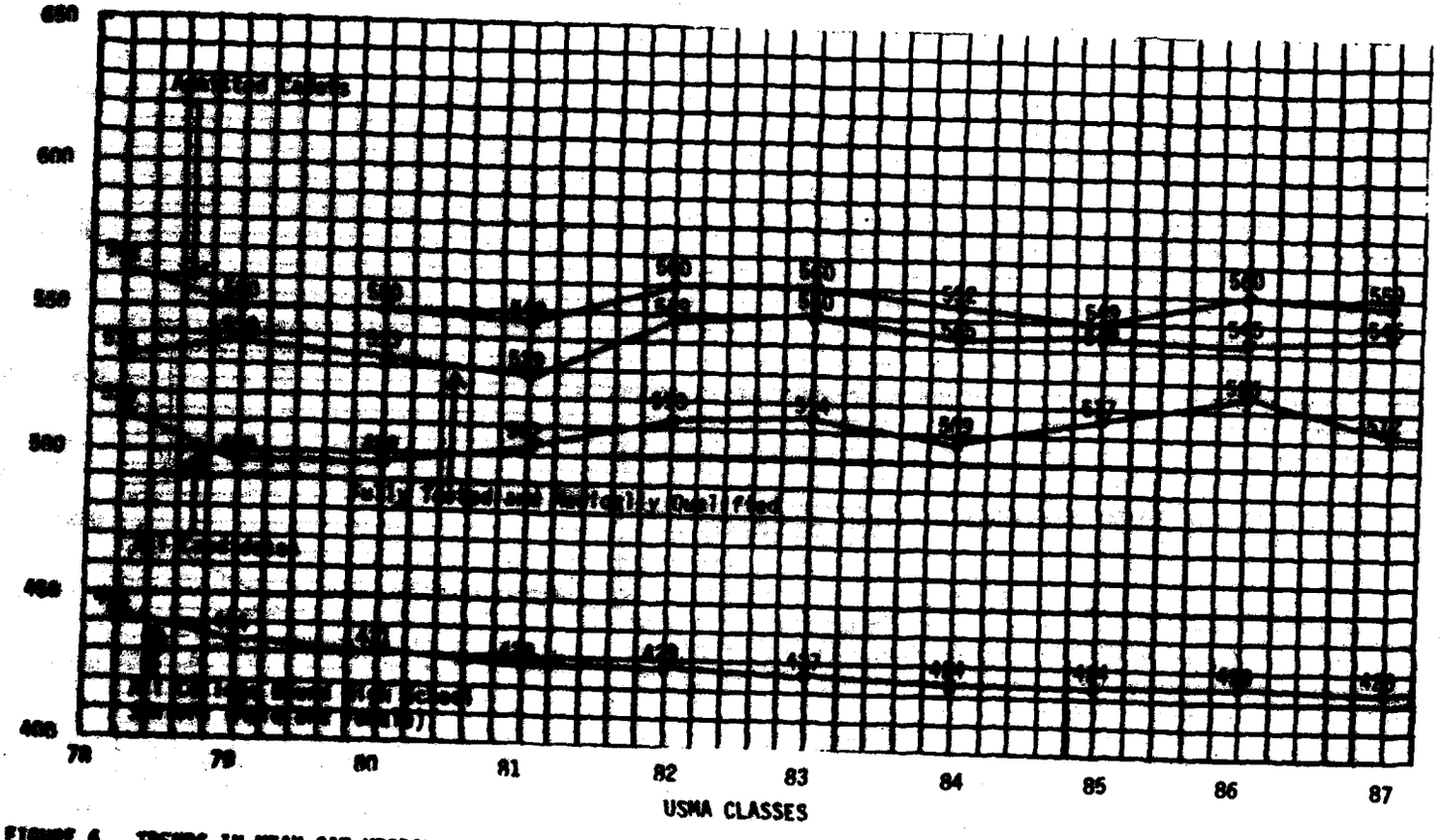


FIGURE 6. TRENDS IN MEAN SAT-VERBAL SCORES FOR THE CANDIDATES AND ENTERING CADETS OF THE CLASSES OF 1978 THROUGH 1987 AND ALL COLLEGE BOUND HIGH SCHOOL SENIORS NATIONWIDE.

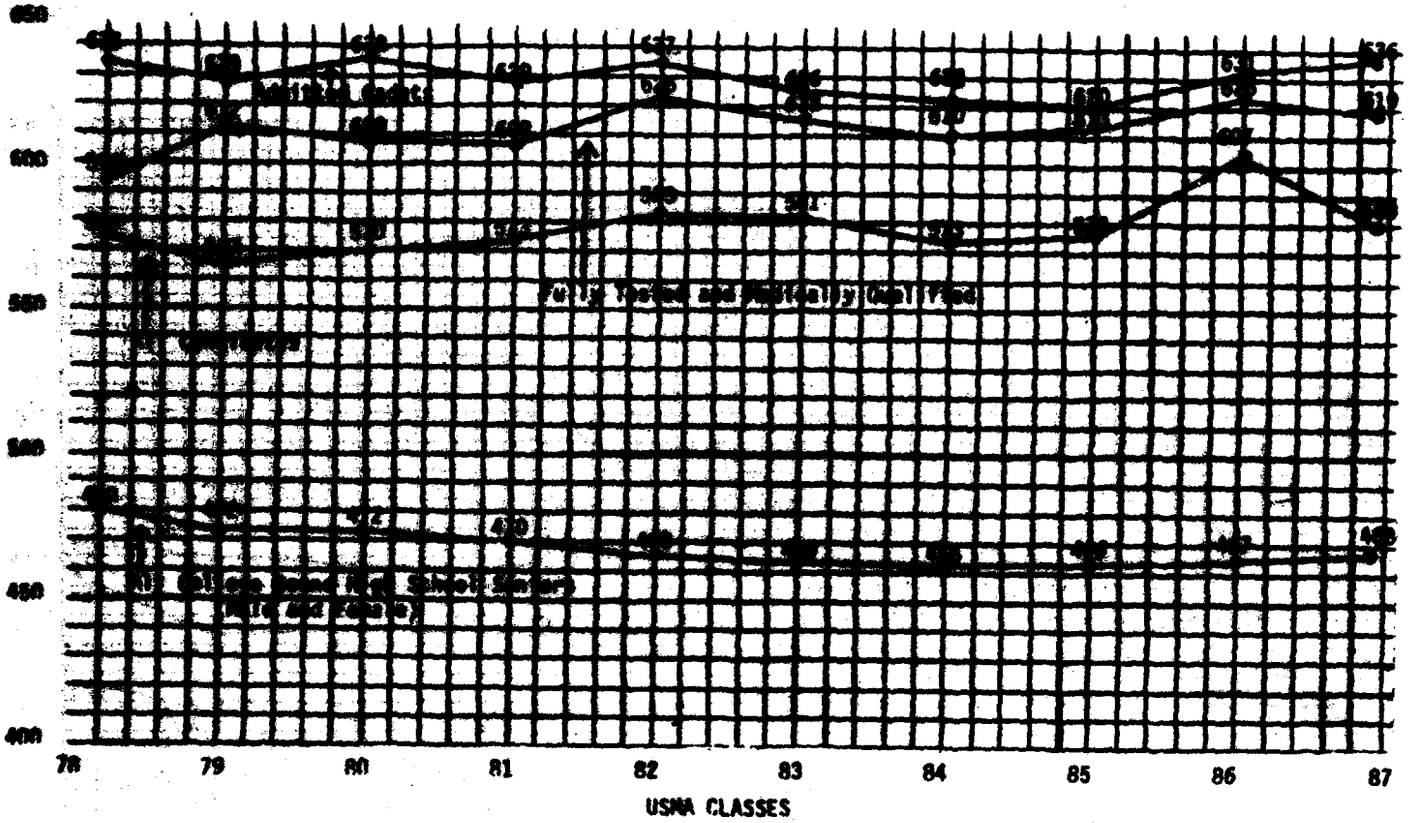


FIGURE 7. TRENDS OF MEAN SAT-MATHEMATICS SCORES FOR CANDIDATES AND ENTERING CADETS OF THE CLASSES OF 1978 THROUGH 1987 AND ALL COLLEGE BOUND HIGH SCHOOL SENIORS, NATIONWIDE.

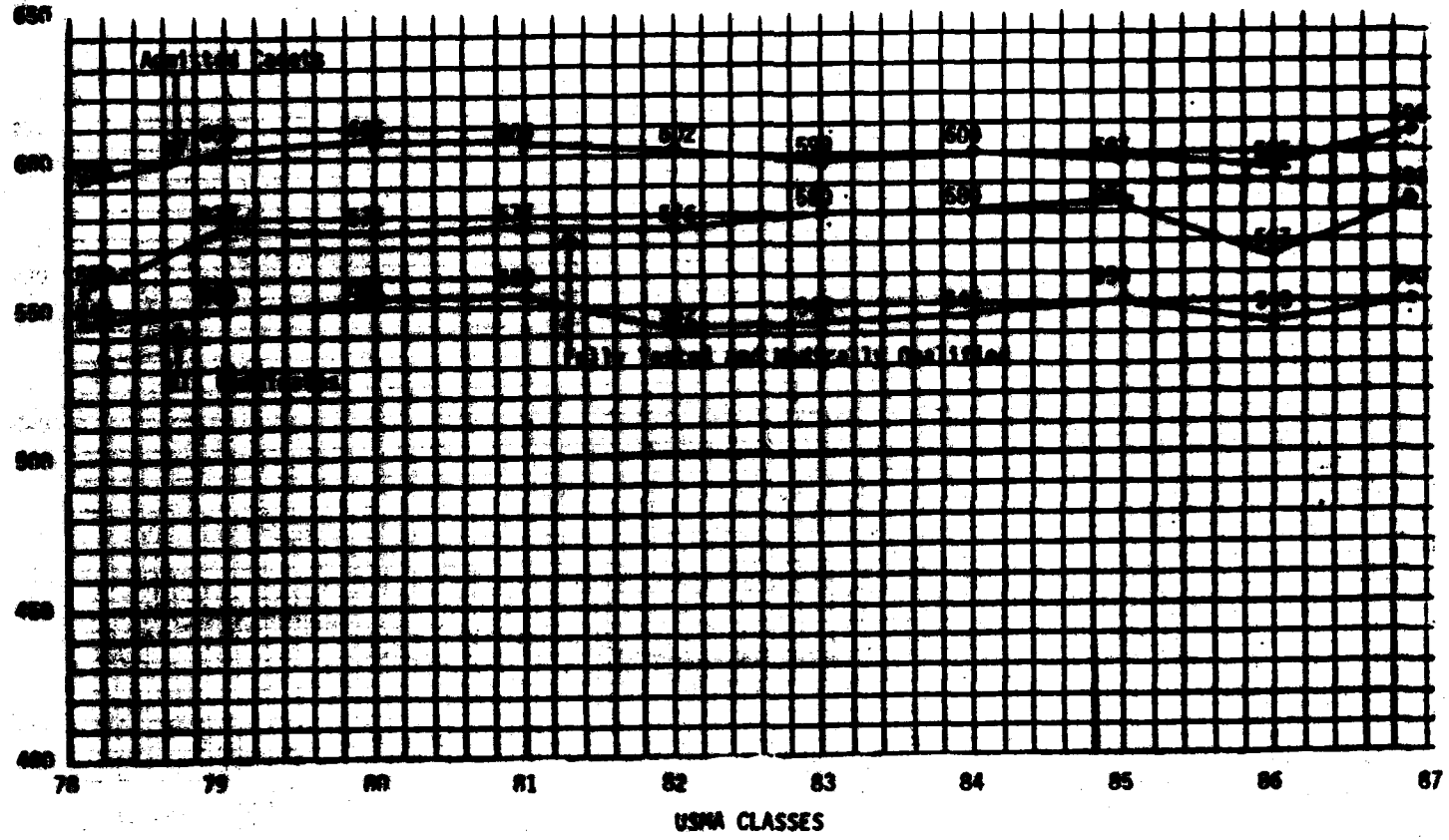


FIGURE 8. TRENDS OF MEAN LEADERSHIP POTENTIAL SCORES FOR THE CANDIDATES AND ENTERING CADETS OF THE CLASSES OF 1978 THROUGH 1987.

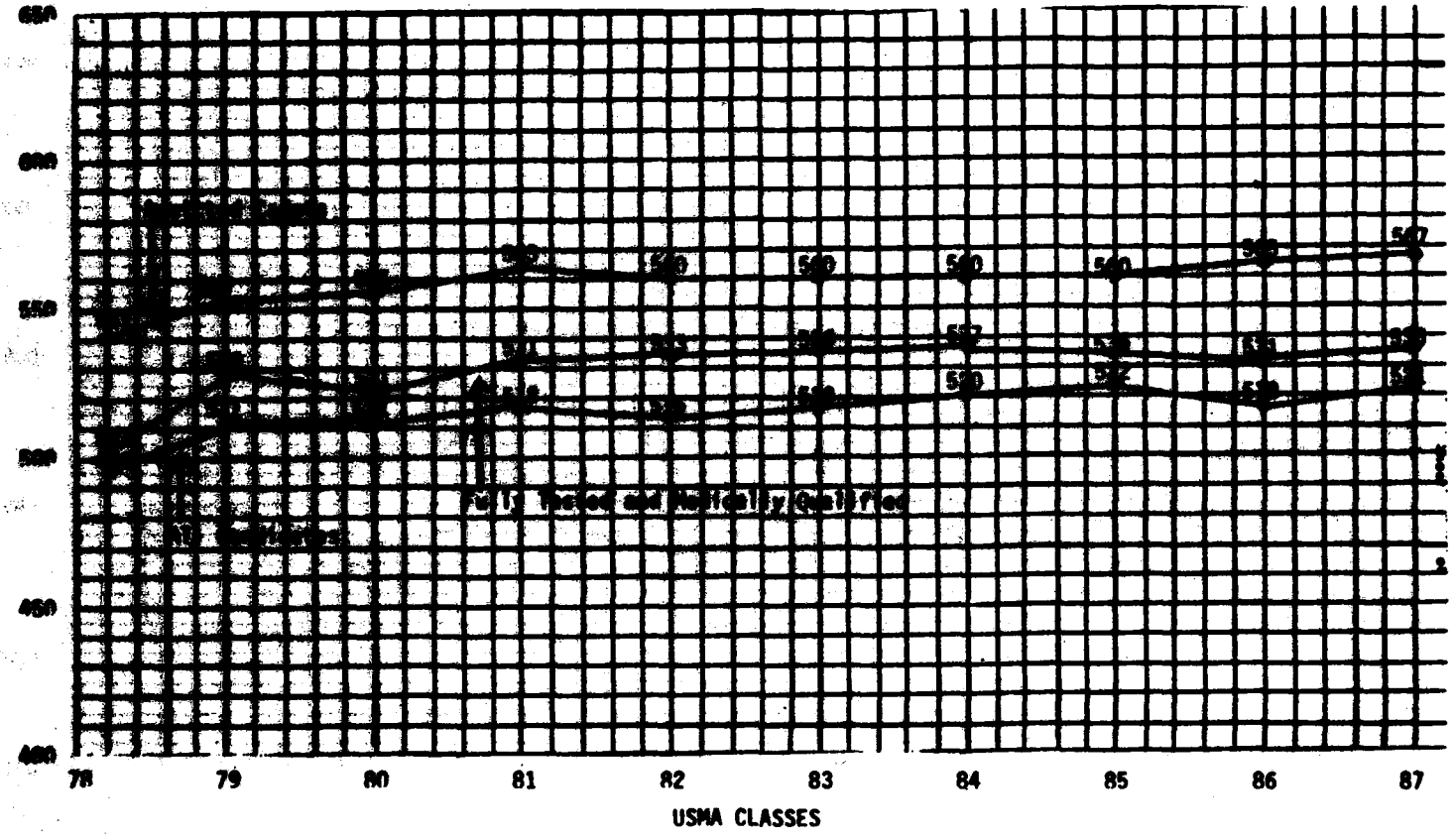


FIGURE 9. TRENDS OF MEAN PAE SCORES FOR THE CANDIDATES AND ENTERING CADETS OF THE CLASSES OF 1978 THROUGH 1987. (PAE for admitted cadets is for male cadets only).

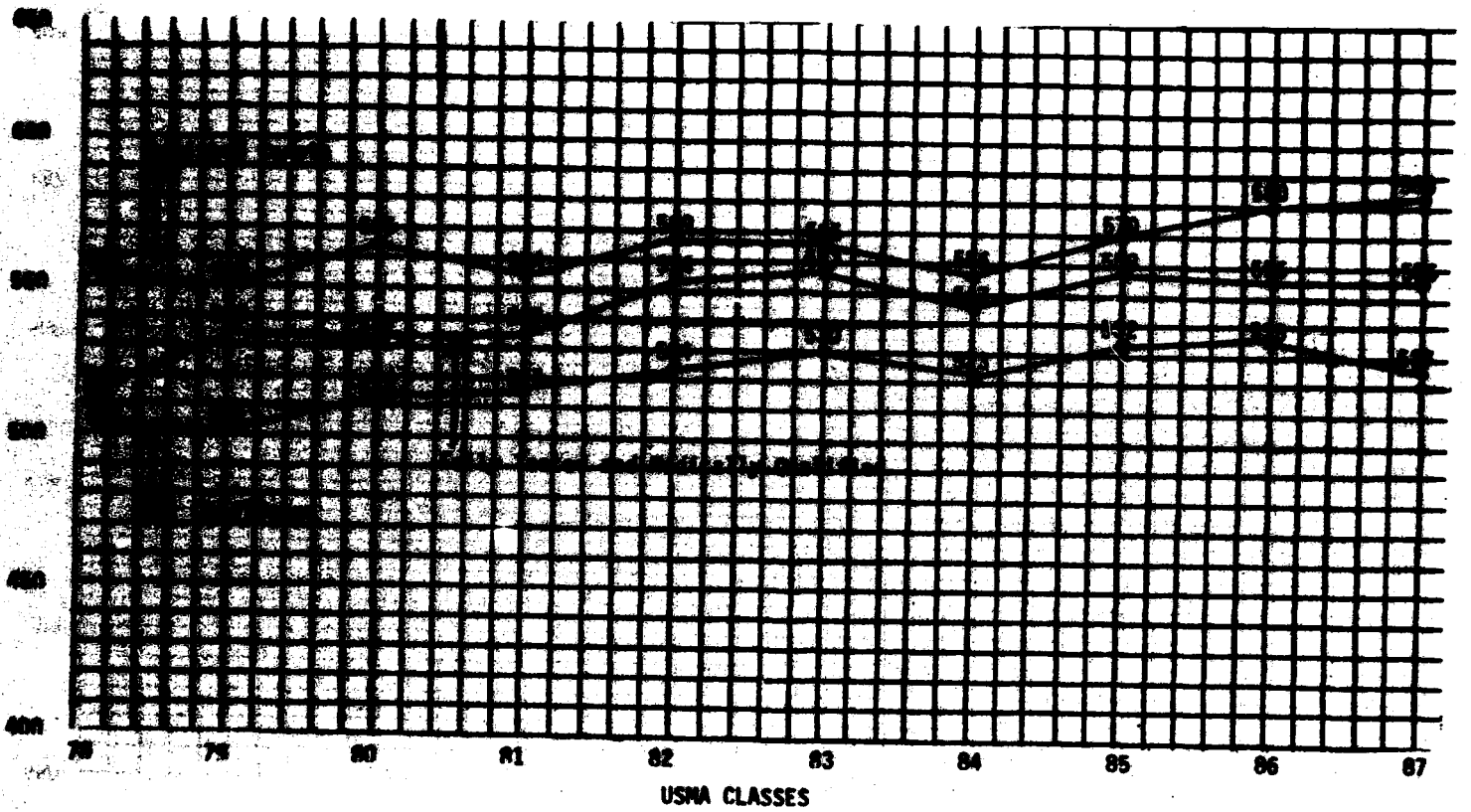


FIGURE 10. TRENDS OF MEAN HIGH SCHOOL RANK SCORES FOR THE CANDIDATES AND CADETS OF THE CLASSES OF 1978 THROUGH 1987.

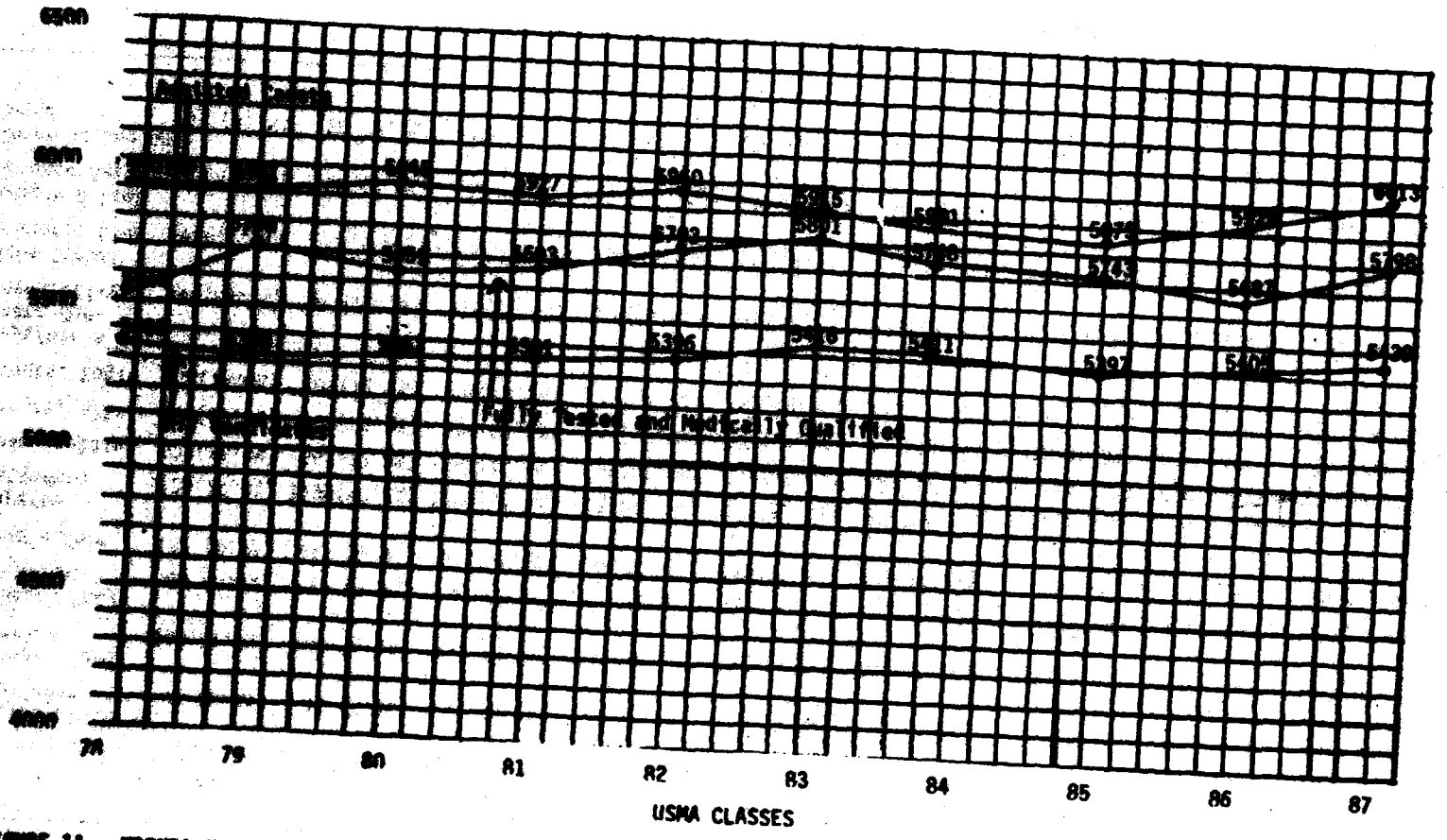


FIGURE 11. TRENDS OF MEAN MALE CANDIDATE SCORES FOR THE CANDIDATES AND ENTERING CADETS OF THE CLASSES OF 1978 THROUGH 1987.

TABLE 3

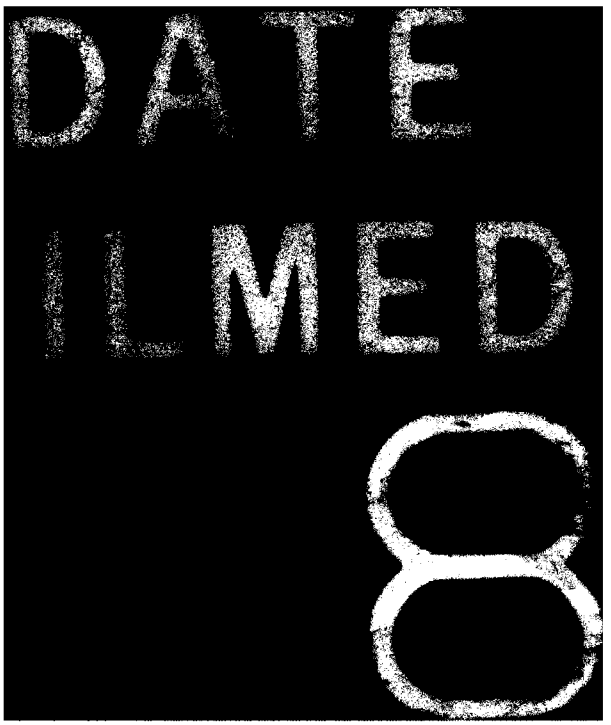
SELECTED HIGH SCHOOL ACTIVITIES AND AWARDS OF ENTERING CADETS IN THE CLASSES OF 1979 THROUGH 1987

	CLASS								
	1979	1980	1981	1982	1983	1984	1985	1986	1987
Senior Class President	96 (6.8%)	86 (5.8%)	91 (6.2%)	65 (4.7%)	77 (5.5%)	68 (4.7%)	77 (5.1%)	67 (5%)	89 (6.2%)
Senior Class Officer	160(11.4%)	184(12.4%)	192(13.1%)	177(12.8%)	187(13.4%)	235(16.1%)	242(15.9%)	214 (15%)	224 (15.7%)
Student Body President	68 (4.8%)	73 (4.9%)	97 (6.6%)	73 (5.3%)	81 (5.8%)	63 (4.3%)	76 (5.0%)	85 (6%)	70 (4.9%)
Debate Team	127 (8.9%)	147 (9.9%)	163(11.1%)	160(11.5%)	159(11.4%)	158(10.8%)	170(11.2%)	170 (12%)	170 (11.9%)
Varsity Letterman	1130(79.8%)	1159(78.7%)	1219(82.9%)	1161(83.2%)	1151(82.3%)	1220(84.3%)	1268(83.5%)	1210 (85%)	1237 (86.6%)
Team Captain	529(37.3%)	562(37.8%)	654(44.5%)	589(42.9%)	629(45.0%)	688(47.5%)	692(45.6%)	690 (49%)	690 (48.3%)
Scouts, All	788(55.7%)	790(53.2%)	884(59.7%)	748(53.6%)	791(56.6%)	733(50.3%)	736(48.4%)	630 (45%)	629 (44.0%)
Scouts, Eagle	205(14.4%)	189(12.8%)	209(14.2%)	142(11.2%)	182(13.0%)	174(11.9%)	138(10.4%)	122 (10%)	120 (8.4%)
Boys/Girls State Rep. Participation	288(20.1%)	311(20.9%)	319(21.4%)	275(19.8%)	310(22.2%)	333(22.9%)	297(19.6%)	312 (22%)	346 (24.2%)
High School Academic Club	166(11.8%)	173(11.6%)	209(14.2%)	215(15.5%)	209(14.9%)	229(15.7%)	219(14.4%)	219 (15%)	237 (16.6%)
Boone & Lamb Science Award	39 (2.7%)	38 (2.6%)	38 (2.6%)	30 (2.2%)	28 (2.0%)	30 (2.1%)	26 (1.7%)	39 (3%)	56 (3.9%)
American Legion Award	131 (9.1%)	120 (8.1%)	145 (9.9%)	128 (9.2%)	138 (9.9%)	136 (9.3%)	154(10.1%)	138 (10%)	138 (9.7%)

TABLE 3a

SELECTED CHARACTERISTICS OF CADETS IN THE CLASSES OF 1978 THROUGH 1987

	CLASS								
	1979	1980	1981	1982	1983	1984	1985	1986	1987
Cadets with 1 or more months of College	217(15.8%)	225(15.2%)	263(17.9%)	213(15.3%)	260(18.6%)	215(14.1%)	174(11.4%)	204(14%)	156(10.9%)
Son or Daughter of Alumni of USMA	64 (4.5%)	59 (4.0%)	62 (4.2%)	57 (4.1%)	59 (4.2%)	54 (3.7%)	59 (3.8%)	51(4%)	41(3%)
Attended USMA Preparatory School	211(14.7%)	179(12.1%)	162(11.0%)	211(15.2%)	207(14.8%)	191(13.1%)	203(13.3%)	186(13%)	173(12.1%)
Attended Public High School	1291(86.9%)	1283(86.4%)	1259(85.7%)	1194(85.4%)	1201(85.9%)	1245(85.2%)	1281(84.4%)	1209(85%)	1174(82.2%)
Attended Private High School	202(14.1%)	198(13.4%)	208(14.2%)	201(14.5%)	197(14.1%)	220(14.8%)	235(15.6%)	209(15%)	226(15.8%)
Rank in High School Class									
Top Fifth	1081(78.8%)	1116(75.2%)	1070(72.9%)	1055(75.5%)	1021(73.0%)	1003(68.6%)	1062(69.6%)	1031(73%)	1219(85.3%)
Second Fifth	316(21.4%)	260(17.5%)	287(19.5%)	241(17.2%)	253(18.1%)	335(22.9%)	340(22.4%)	283(20%)	151(10.6%)
Third Fifth	30 (2.3%)	90 (6.3%)	95 (6.5%)	89 (6.4%)	102 (7.3%)	102 (7.0%)	92 (6.2%)	88(6%)	46(3.2%)
Fourth Fifth	16 (1.1%)	12 (0.8%)	13 (0.9%)	8 (0.6%)	18 (1.3%)	16 (1.1%)	17 (1.1%)	13(1%)	6(0.4%)
Bottom Fifth	2 (0.1%)	3 (0.2%)	2 (0.1%)	2 (0.1%)	3 (0.2%)	4 (0.3%)	5 (0.3%)	3(0.2%)	2(0.1%)
Valedictorians	86 (6.0%)	83 (5.6%)	90 (6.1%)	86 (6.2%)	77 (5.5%)	58 (4.0%)	67 (4.4%)	89(6%)	119(8.3%)
Salutatorians	58 (4.0%)	58 (3.9%)	66 (4.5%)	62 (4.5%)	58 (4.1%)	60 (4.1%)	65 (4.3%)	89(6%)	93(6.5%)
N =	1433	1485	1469	1396	1398	1466	1538	1420	1435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